OSC THEISEN

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E.2

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-7367

Mr. Steven J. Faryan
Deputy Project Officer
Emergency Response Section
U.S. Environmental Protection Agency
11th Floor
230 South Dearborn St.
Chicago, Illinois 60604

July 5, 1989

TAT-05-G2-01177

Re: Selmer (AKA Superior Street)
Elkhart, Indiana
TDD# 5-8903-21

Dear Mr. Faryan:

On April 21, 1989, the U.S. Environmental Protection Agency (U.S. EPA) tasked the Technical Assistance Team to monitor Potentially Responsible Party (PRP) activities at the Selmer (AKA Superior Street) site in Elkhart, Indiana (Figure 1). This letter report provides a site description, a brief site history, and a discussion of PRP activities completed to date.

Site Description

The Selmer facility is an operating musical instrument manufacturer located at 500 Industrial Parkway, on the west side of Elkhart, Indiana. The facility is in an industrial park, which is bordered on the north by Conrail Railroad tracks, on the west by Riverview Avenue and Outer Drive, on the south by U.S. 20, and on the east by County Road 13. Residential areas border the industrial park on the north, west, and south. The eastern edge of the industrial park (Elkhart city limits) is bordered by a mixture of residential areas and vacant lots.

The St. Joseph River, which flows west, is located 3/4 mile north of the Selmer site, and the Elkhart River, which flows northwest, is located 1-1/4 mile southwest of the site. The confluence of the two rivers is approximately 2 miles northwest of the Selmer site.

The topography of the site is generally flat (0 to 2 percent slopes) with regional, surface run-off flowing north/northwest towards the St. Joseph River. Soils in the area are of the Dickinson sandy loam series. "In a representative profile, the

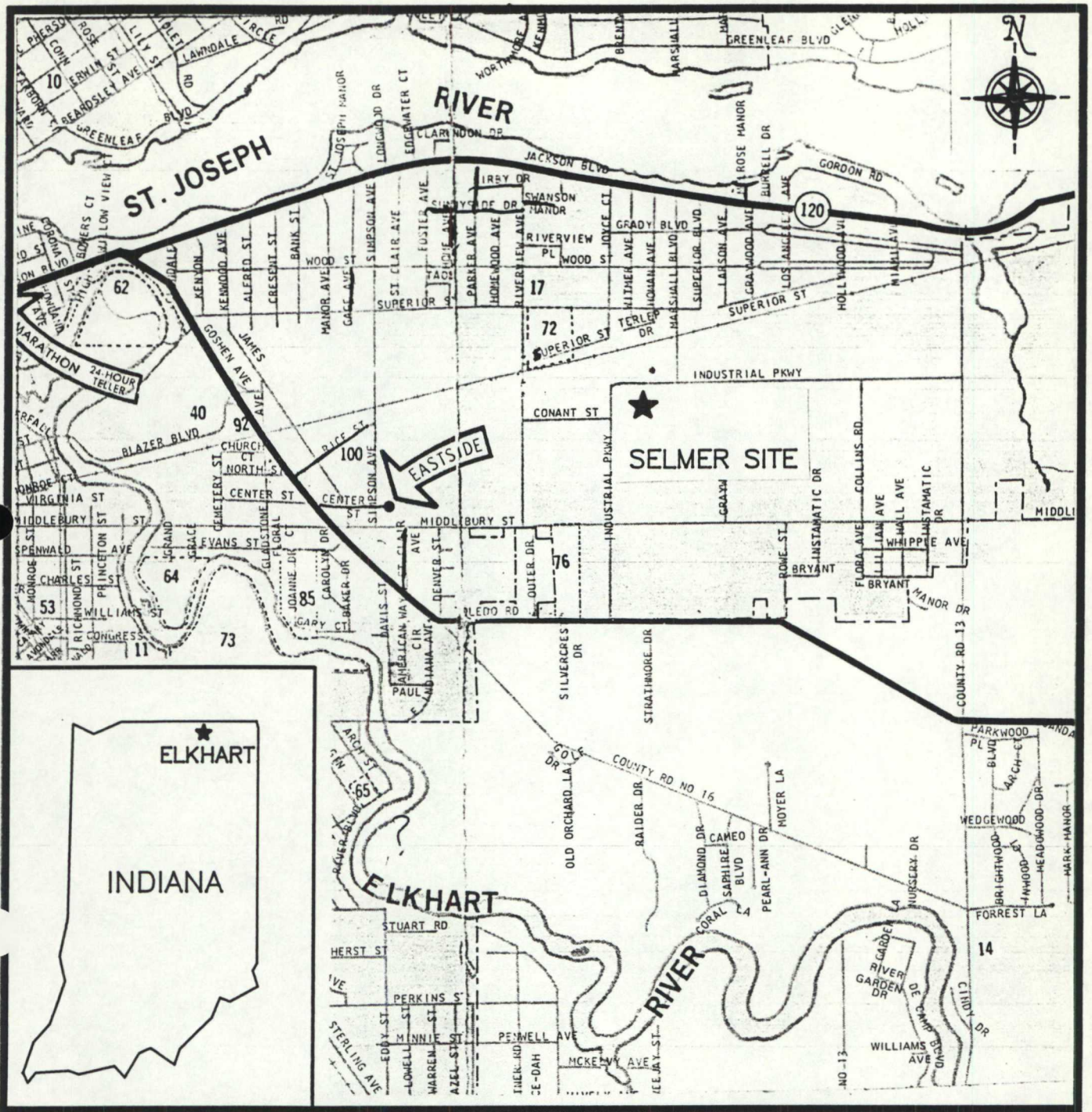

FIGURE 1

SITE LOCATION MAP

SELMER SITE

ELKHART, INDIANA

SCALE 1 INCH=1/2 MILE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

DRAWN BY K.M. HANLON	DATE 6-23-89	PCS # 2180
APPROVED BY J. BINKLEY	DATE 6-23-89	TDD # 5-8903-21

surface layer is light-brown sandy loam about 8 inches thick. The subsoil is about 26 inches thick. The upper 16 inches is dark-brown, friable sandy loam, and the next 10 inches is dark yellowish-brown, loose loamy sand. The underlying material consists of two parts. The upper part is light yellowish-brown, loose sand that contains about 10 percent gravel. The lower part is very pale brown coarse sand and gravel (USDA 1974)." Dickinson soils typically have a low available moisture capacity and high organic-matter content. In addition, the soils are characterized by a moderately rapid permeability and slow run-off. The Dickinson sandy loam soil is located on sandy outwash plains and is common around small depressions.

A depression (possibly a former gravel pit) is located in the southeast corner of the Selmer property. The depth of the depression is unknown, although it appears to intersect the ground water table, as evidenced by a pond in the depression. A heavy vegetative cover has developed in the marsh-like area surrounding the pond. This area receives surface run-off from the surrounding area and from a Selmer facility discharge pipe. Underlying strata consist of glacial outwash deposits, with an average depth of 175 feet. Interbedded within these deposits is a layer of silt and clay, with a maximum thickness of 80 feet, and average thickness of 20 feet. Where this layer is present, it divides the outwash deposits into two aquifers and confines the deeper aquifer (Imbrigiotta and Martin, 1981). The confining layer is present beneath the Selmer site, and the direction of ground water flow in the area is northwesterly, towards the St. Joseph River.

Analyses of soil and ground water samples collected at the Selmer site detected the following contaminants: methylene chloride, trichloroethene (TCE), xylene, 1,2-dichloroethene, methyl ethyl ketone, and vinyl chloride.

Site History

The Selmer facility at 500 Industrial Parkway was constructed in 1964, and shortly thereafter, C. G. Conn commenced operations at the plant. In 1969, Crowell, Collier and Macmillan, Inc. (Macmillan, Inc.) purchased C. G. Conn, and a new wholly-owned subsidiary entitled C. G. Conn Ltd., was formed. In 1970, the Selmer Company (Selmer) purchased the facility from C. G. Conn Ltd. (Macmillan, Inc.). Until December 1988, Selmer was a division or subsidiary corporation of North American Phillips Corporation. The

present owner of the site is Selmer, a recently formed Delaware limited partnership. Sampling conducted by the U.S. EPA and the Indiana Department of Environmental Management (IDEM) in 1986 documented widespread volatile organic compound (VOC) contamination in residential wells to the north and northwest of the industrial park in which Selmer is located. To mitigate the threats posed to human health by the VOC contamination, the U.S. EPA constructed water mains and provided city water connections to area residences and businesses that had been relying on ground water wells. The mitigative activities were documented in a U.S. EPA On-Scene Coordinator (OSC) report dated March 25, 1988.

In the course of cost recovery activities, the U.S. EPA initiated an investigation of potential sources of VOC contamination within the industrial park. Prior to the cost recovery investigation, one source, the Accra-Pac site (approximately 1/2 mile east of Selmer), was identified as a source of VOC contamination. The Accra-Pac site, which is currently under investigation (TDD# 5-8903-15), is suspected to be a source of VOC contamination in residential wells northeast of Selmer. In an attempt to identify other sources of contamination in the area, the U.S. EPA issued Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 104(e) Information Requests to several businesses in the industrial park. Of those businesses issued Information Requests, only Selmer acknowledged inappropriate disposal practices. Selmer's response to the U.S. EPA inquiry stated that between 1970 and 1974, TCE was "released behind plant, and into a sump hole" on a weekly basis. In addition, Selmer provided affidavits from persons employed at the plant prior to 1970 (C. G. Conn Ltd., and Macmillan, Inc. employees) that indicated TCE was routinely poured down the facility drains and disposed of in a marshy area behind the facility.

Following receipt of Selmer's response, the U.S. EPA proceeded with cost recovery activities naming the following defendants: The Selmer Company, as the current owner of a facility from which hazardous substances have been released into the environment; Macmillan, Inc., as a company that, at the time of disposal of hazardous substances, owned or operated the facility; and, North American Phillips Corporation, because the Selmer Company was one of its divisions at a time that U.S. EPA may have incurred some of its removal costs.

After negotiating with the defendants, the U.S. EPA Regional Counsel believed that the Selmer Company would enter into an Administrative Consent Order with U.S. EPA, whereby it would pay some of U.S. EPA's past costs associated with mitigative actions taken in residential areas suspected to be affected by past Selmer disposal practices. On March 17, 1989, Selmer informed U.S. EPA Regional Counsel that it would not enter into the Administrative Consent Order. Subsequently, on May 12, 1989, the U.S. EPA Regional Counsel referred the case to the United States Department of Justice to commence a civil action lawsuit to compel the defendants to undertake a study and cleanup of the site, and to recover costs incurred in responding to a release from the Selmer site.

In a similar timeframe, the Selmer Company and North American Phillips Corporation notified U.S. EPA OSC Ken Theisen of their intent, regardless of the pending legal actions, to proceed with a preliminary sampling effort at the site. Subsequently, U.S. EPA requested TAT provide PRP monitoring during on-site sampling activities.

On April 26, 1989, U.S. EPA OSC Ken Theisen and TAT member Jeff Binkley met North American Phillips Project Manager Allen W. Hatheway and Douglas Opell of Heritage Remediation/Engineering, Inc. (drilling subcontractor) at the Selmer site. Mr. Hatheway indicated that "corporate memory" suggested that from 1970 to 1974, standard operating procedures included the dumping of solvent still bottoms out a door on the east side of the facility. Mr. Hatheway indicated he was not aware of the type or location of disposal practices utilized prior to 1970. In addition, based on the "corporate memory" (1970 to 1974), Mr. Hatheway had selected nine soil boring locations. Eight of the borings were installed in proximity to the suspected disposal area (Figure 2), and one was installed in the northwest corner (Figure 3) of the Selmer Property (downgradient) to determine if migration of VOCs off site had occurred.

Drilling activities were initiated on April 26, 1989, by Heritage, which conducted continuous soil sampling to a minimum depth of 10 feet at each location. A combination of split-spoons and a 5-ft soil corer were utilized to collect the samples. In addition to soil samples, which were collected at 1.5-ft intervals throughout the entire depth of each boring, continuous air monitoring was conducted with an organic vapor analyzer by Mr. Opell, a Heritage geologist.

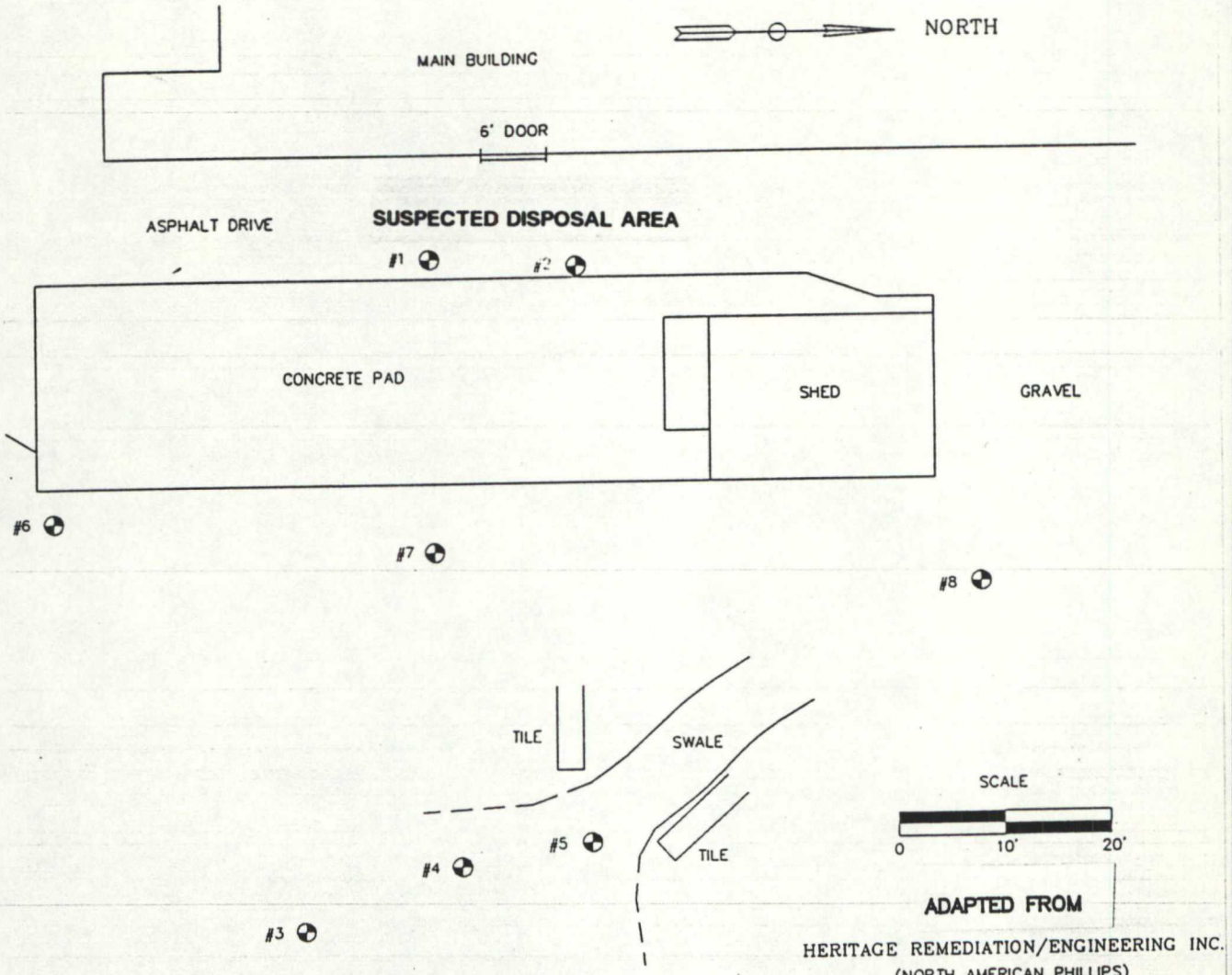

FIGURE **2**

SUSPECTED DISPOSAL AREA

SELMER SITE

ELKHART, INDIANA

WESTON MANAGERS DESIGNERS/CONSULTANTS

DRAWN BY K.M. HANLON	DATE 6-23-89	PCS # 2180
APPROVED BY J. BINKLEY	DATE 6-23-89	TDD # 5-8903-21

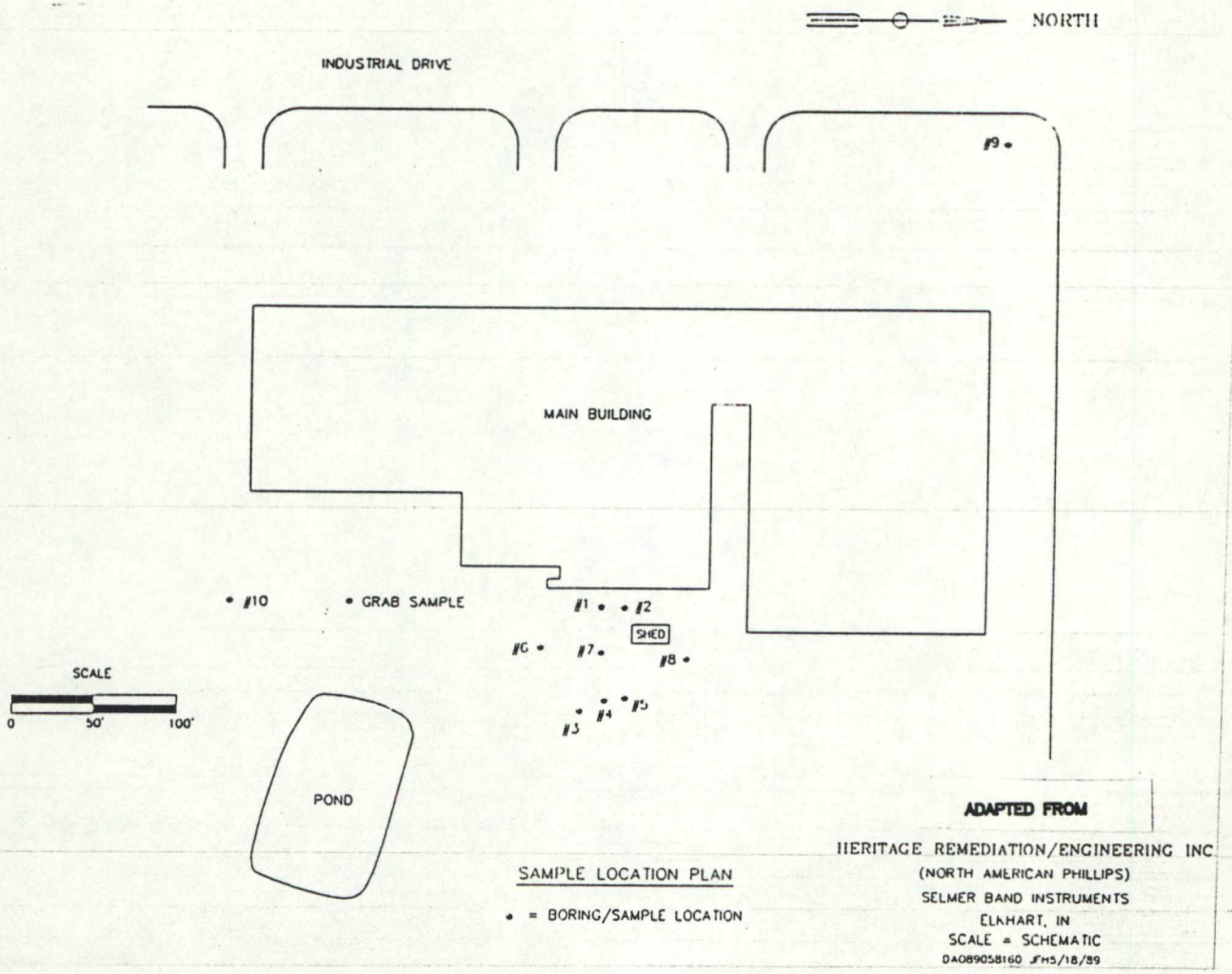

FIGURE **3**

SITE MAP

SELMER SITE

ELKHART, INDIANA

WESTON

MANAGERS DESIGNERS/CONSULTANTS

DRAWN BY K.M. HANLON	DATE 6-23-89	PCS # 2180
APPROVED BY J. BINKLEY	DATE 6-23-89	TDD # 5-8903-21

A total of five boreholes were completed on April 26, 1989. Borehole No. 1 was installed within the alleged dumping area to a depth of 10 feet, and Borehole No. 2 (also within the alleged dumping area) was installed to a depth of 14.5 feet. At each location, borings indicated the presence of backfill material from the surface to a depth of 10 feet. In addition, from a depth of 10 to 14.5 feet in Borehole No. 2, fine-to-coarse-grained sand was observed, and the saturated zone was encountered at an approximate depth of 14.3 feet.

Borehole Nos. 3 and 4 (within the depression east of the alleged disposal area) were completed to a depth of 15 feet, and the saturated zone was encountered in Borehole No. 3 at an approximate depth of 9 feet. The subsurface material present in each boring primarily consisted of gravelly sand. After the U.S. EPA OSC and TAT departed the site on April 26, 1989, Heritage completed Borehole No. 5. Borehole Nos. 6 through 10 were completed on April 27, 1989.

Heritage selected 21 samples for submission to EMS Laboratories, Inc., Indianapolis, Indiana, for VOC analyses. The analytical results documented the presence of VOC contamination in soils and ground water at the Selmer property (Table 1).

Based on the analytical results of the preliminary assessment and reports (affidavits) of historical dumping practices at the Selmer site, it appears that a more complete extent-of-contamination (EOC) study may be indicated at the Selmer site. This EOC may include (at a minimum) a grid sampling plan to extend from the eastern side of the Selmer facility eastward to encompass the marsh area. Within the grid area, the EOC may include the extension of soil borings into the saturated zone, and the installation of monitoring wells in selected locations. Water and sediment samples could also be collected from the marsh area. An EOC of this magnitude could substantiate information concerning historical dumping at the site and provide the necessary chemical and physical information to fully assess the subsurface conditions at the Selmer site.

TABLE 1

ANALYTICAL RESULTS OF HERITAGE SAMPLING[a]
SELMER (AKA SUPERIOR STREET) SITE
ELKHART, INDIANA
April 26-27, 1989
(All results in mg/kg unless otherwise indicated)

Borehole No.	1	1	2	2	2	3	4	5	5
Sample Type	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
Sample Depth (feet)	3.0-3.5	8.0	2.5	8.0	14.0-14.5	6.0	5.0	0.5-1.5	7.0-8.5
Methylene chloride	0.87	ND[b]	ND	ND	ND	0.60	ND	0.77	ND
Xylenes	1.2	ND	ND	ND	ND	0.59	ND	ND	ND
Trichloroethene	11.0	9.1	0.50	1.4	0.25[c]	ND	ND	ND	ND
1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	1.1	ND
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND

[a]Samples analyzed by EMS Laboratories, Inc., Indianapolis, Indiana, for Heritage.

[b]ND = No compounds detected by RCRA volatiles scan (Method SW846-8240).

[c]Estimated Concentration, below method detection limits.

TABLE 1 (CONTINUED)

ANALYTICAL RESULTS OF HERITAGE SAMPLING[a]
SELMER (AKA SUPERIOR STREET) SITE
ELKHART, INDIANA
April 26-27, 1989
(All results in mg/kg unless otherwise indicated)

Borehole No.	6	6	7	7	7	8	9	9
Sample Type	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
Sample Depth (feet)	7.0-8.5	13.0	4.0	9.0	10.0-11.5	11.5-13.0	6.5-8.0	11.0-12.5
Methylene chloride	ND	0.65	0.61	1.1	ND	0.62	0.51	0.77
Xylenes	ND	0.55	0.79	1.2	ND	1.1	ND	0.88
Trichloroethene	ND	ND	4.9	0.49	ND	1.9	ND	ND
1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	1.6	ND	ND	ND	ND
Methyl ethyl ketone	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND

[a]Samples analyzed by EMS Laboratories, Inc., Indianapolis, Indiana, for Heritage.

[b]ND = No compounds detected by RCRA volatiles scan (Method SW846-8240).

TABLE 1 (CONTINUED)

ANALYTICAL RESULTS OF HERITAGE SAMPLING[a]
SELMER (AKA SUPERIOR STREET) SITE
ELKHART, INDIANA
April 26-27, 1989
(All results in mg/kg unless otherwise indicated)

Borehole No.	10	10	10	
Sample Type	Solid	Solid	Liquid	Liquid
Sample Depth (feet)	0.0-2.0	2.0-4.0	Shallow Ground Water	Decontamination Water
Methylene chloride	ND	ND	ND	
Xylenes	ND	ND	ND	
Trichloroethene	ND	ND	160 ug/liter	10 ug/liter
1,2-Dichloroethene	ND	ND	490 ug/liter	ND
Acetone	ND	ND	ND	ND
Methyl ethyl ketone	1.2	0.71	ND	ND
Vinyl chloride	ND	ND	35 ug/liter	ND

[a]Samples analyzed by EMS Laboratories, Inc., Indianapolis, Indiana, for Heritage.

[b]ND = No compounds detected by RCRA volatiles scan (Method SW846-8240).

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Should you have any questions or require additional information, please feel free to contact us.

Very truly yours,

ROY F. WESTON, INC.

Sally Matz

File Jeffrey S. Binkley
Environmental Scientist

Phillip Wicklein
Technical Assistance Team
Leader, Region V

JSB/dn

att.

LITERATURE CITED

Imbrigiotta, T.E. and A. Martin Jr. U.S. Geological Survey, Water Resources Division. Hydrologic and Chemical Evaluation of the Ground Water Resources of Northwest Elkhart County, Indiana (1981).

U. S. Department of Agriculture, Soil Conservation Service. Soil Survey of Elkhart County, Indiana (1974).

ATTACHMENT A

SITE PHOTOGRAPHS

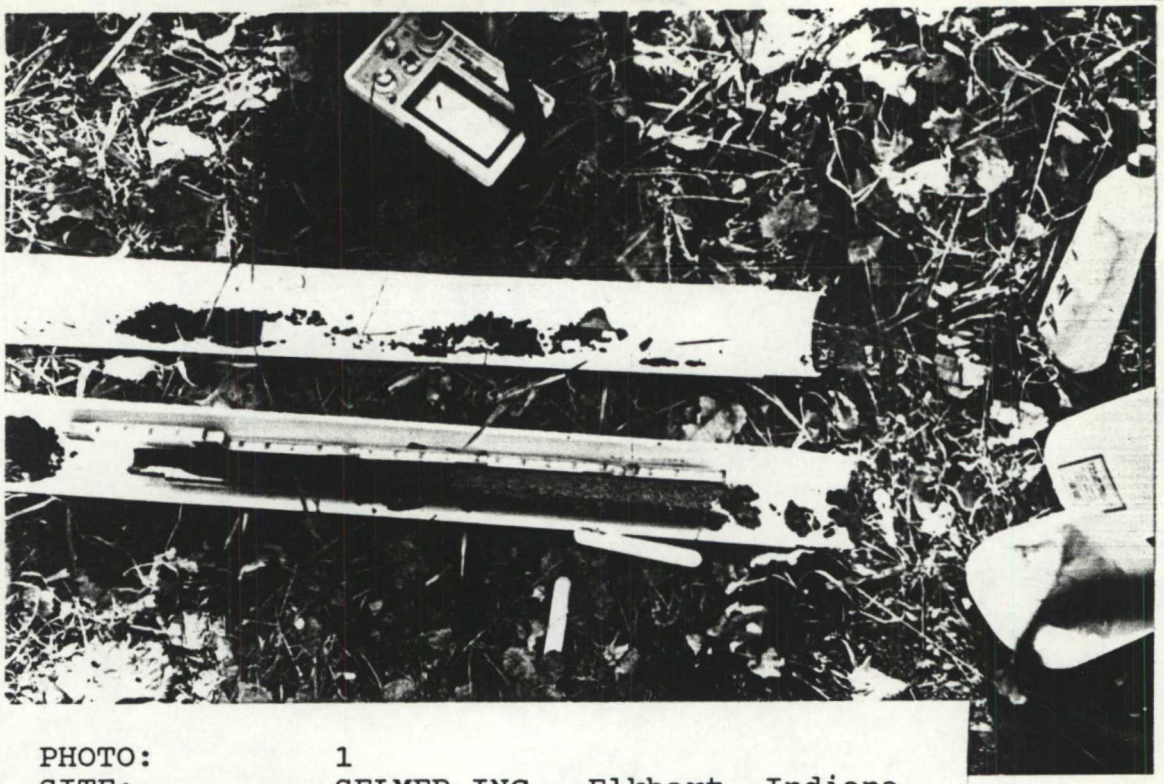

PHOTO: 1
SITE: SELMER INC., Elkhart, Indiana
DESCRIPTION: Split spoon sample retrieved from a depth of approximately 9 feet at Borehole 5 location.
DATE/TIME: 4/26/89 (1000 - 1730 hours)
PHOTOGRAPHER: Binkley

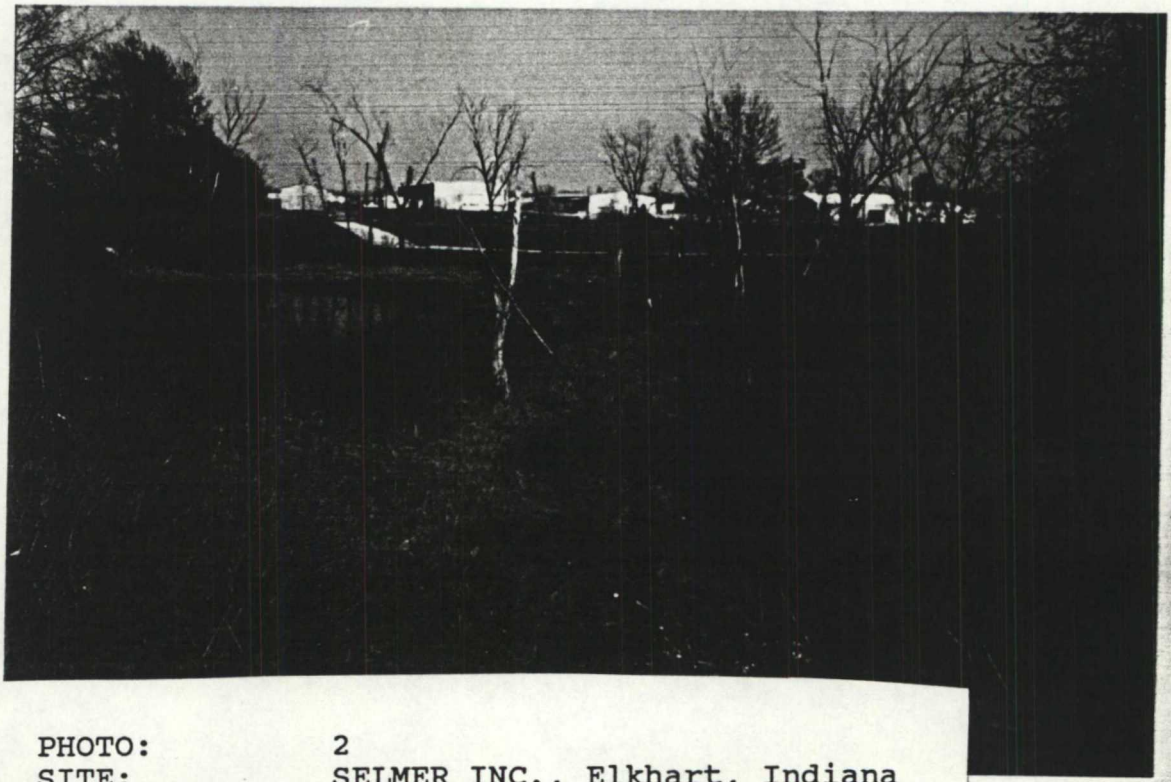

PHOTO: 2
SITE: SELMER INC., Elkhart, Indiana
DESCRIPTION: Pond area southeast of the alleged dumping area.
DATE/TIME: 4/26/89 (1000 - 1730 hours)
PHOTOGRAPHER: Binkley

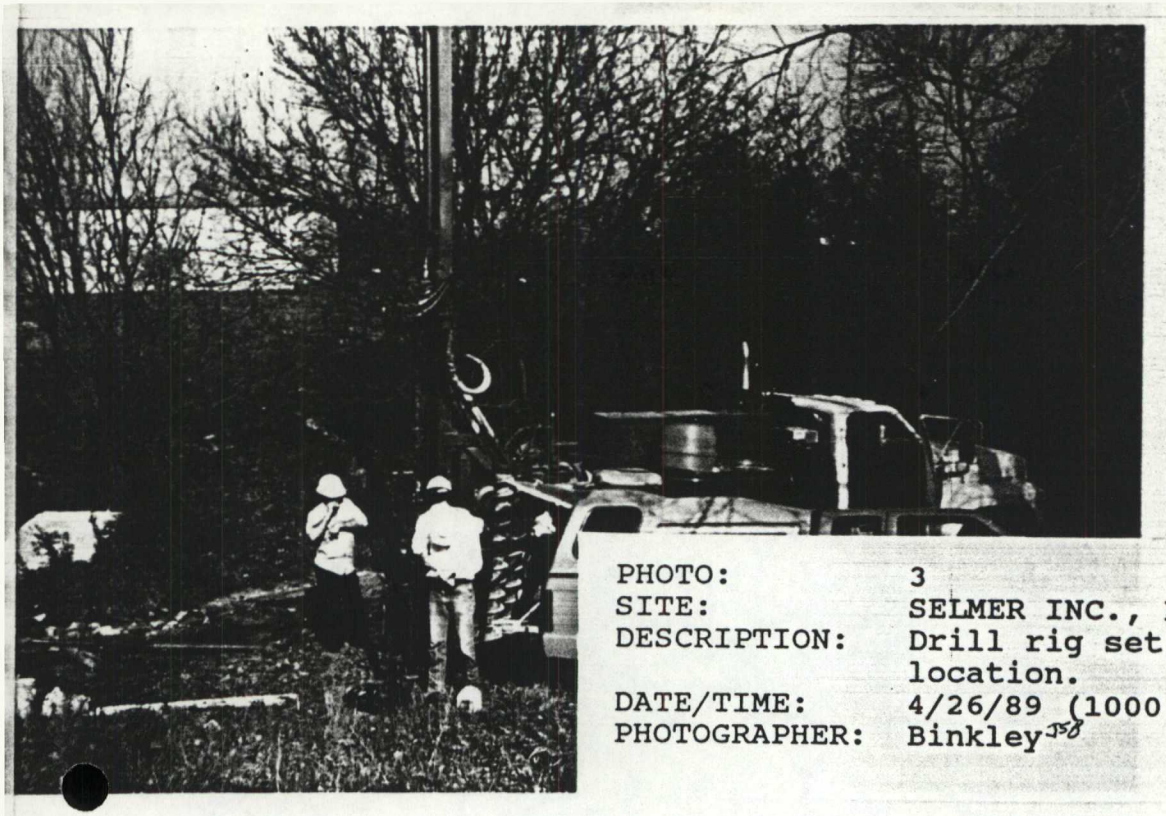

PHOTO: 3
SITE: SELMER INC., Elkhart, Indiana
DESCRIPTION: Drill rig set up at Borehole 4 location.
DATE/TIME: 4/26/89 (1000 - 1730 hours)
PHOTOGRAPHER: Binkley

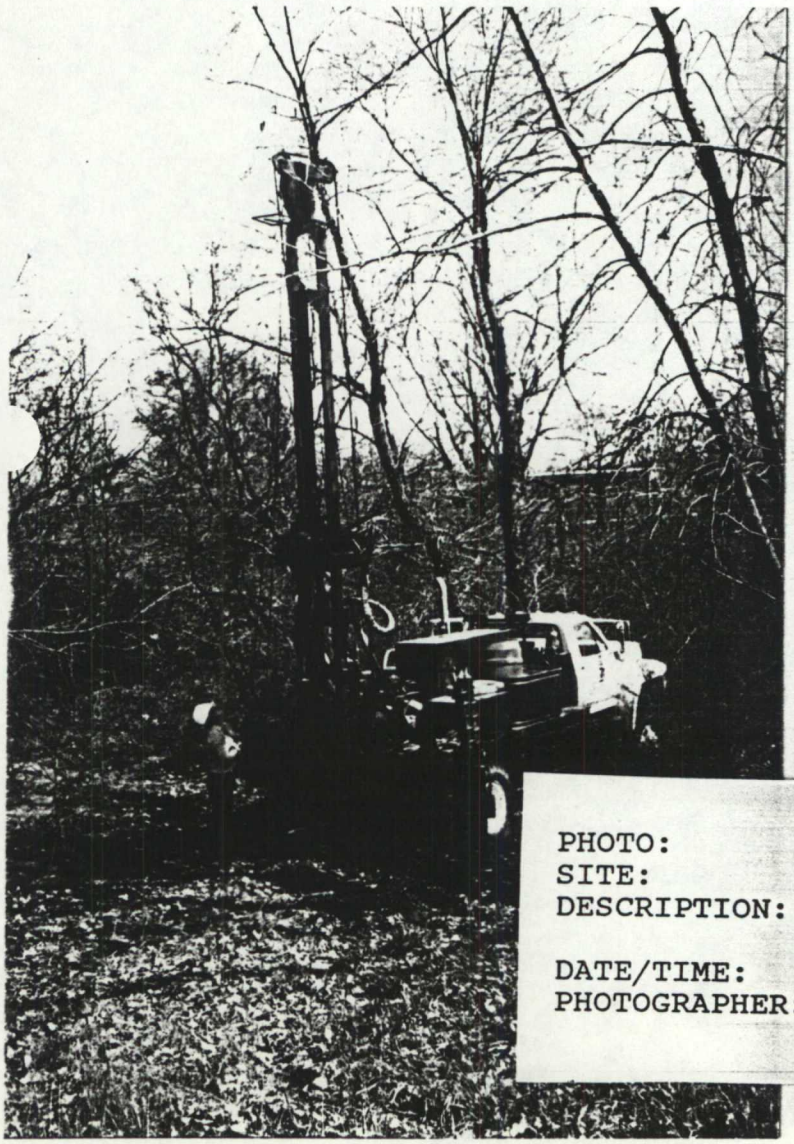

PHOTO: 4
SITE: SELMER INC., Elkhart, Indiana
DESCRIPTION: Drill rig set up at Borehole 3 location.
DATE/TIME: 4/26/89 (1000 - 1730 hours)
PHOTOGRAPHER: Binkley

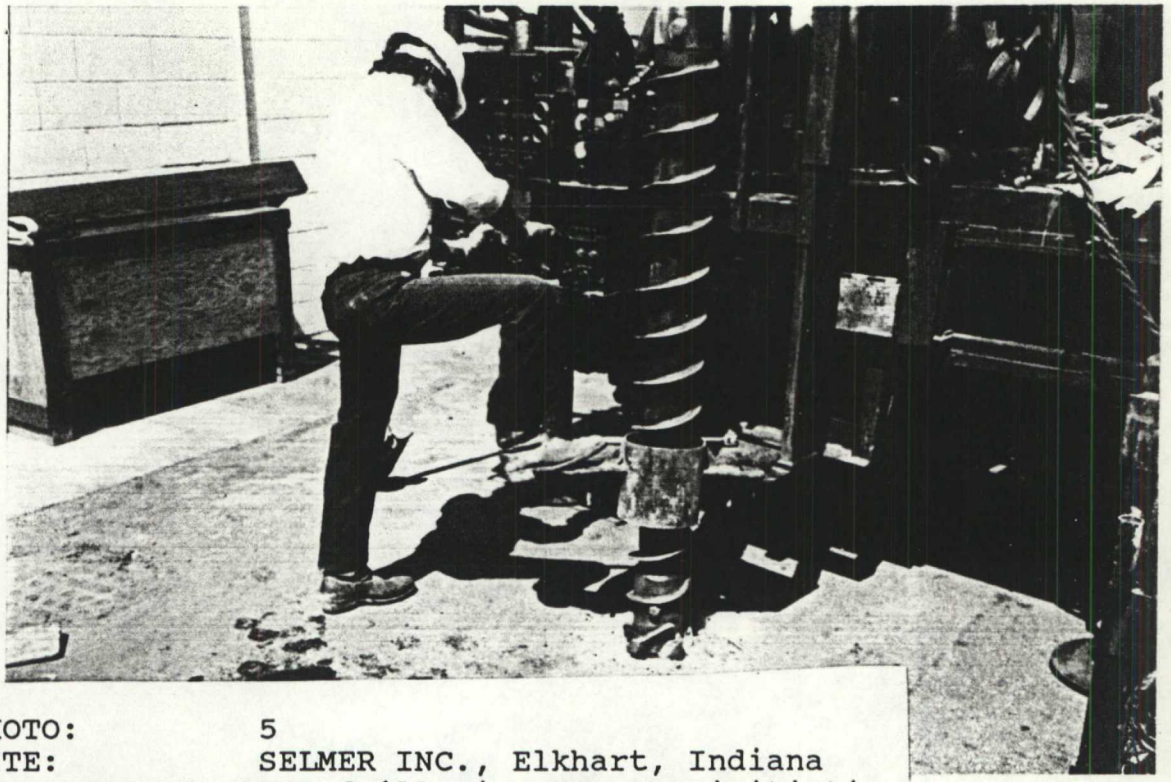

PHOTO: 5
SITE: SELMER INC., Elkhart, Indiana
DESCRIPTION: EIS drill rig operator initiating drilling at Borehole 2
DATE/TIME: 4/26/89 (1000 - 1730 hours)
PHOTOGRAPHER: Binkley TSO

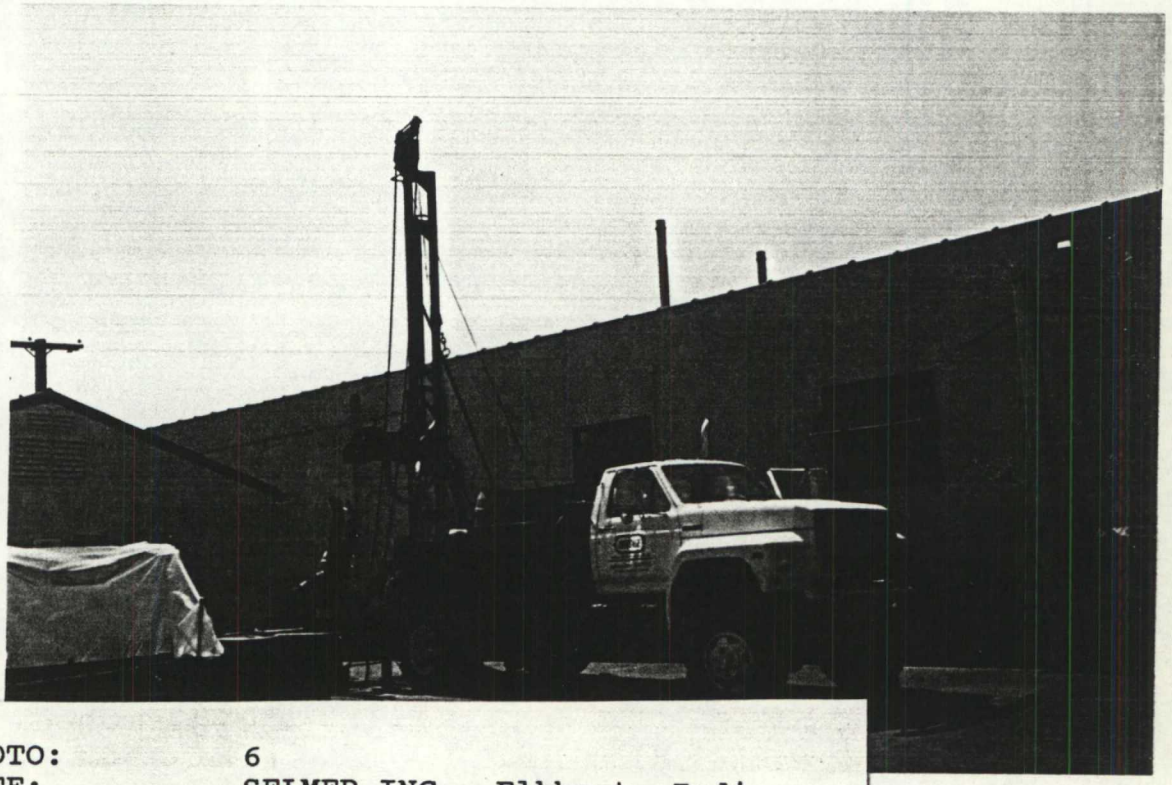

PHOTO: 6
SITE: SELMER INC., Elkhart, Indiana
DESCRIPTION: Drill rig at Borehole 2 location.
DATE/TIME: 4/26/89 (1000 - 1730 hours)
PHOTOGRAPHER: Binkley TSO

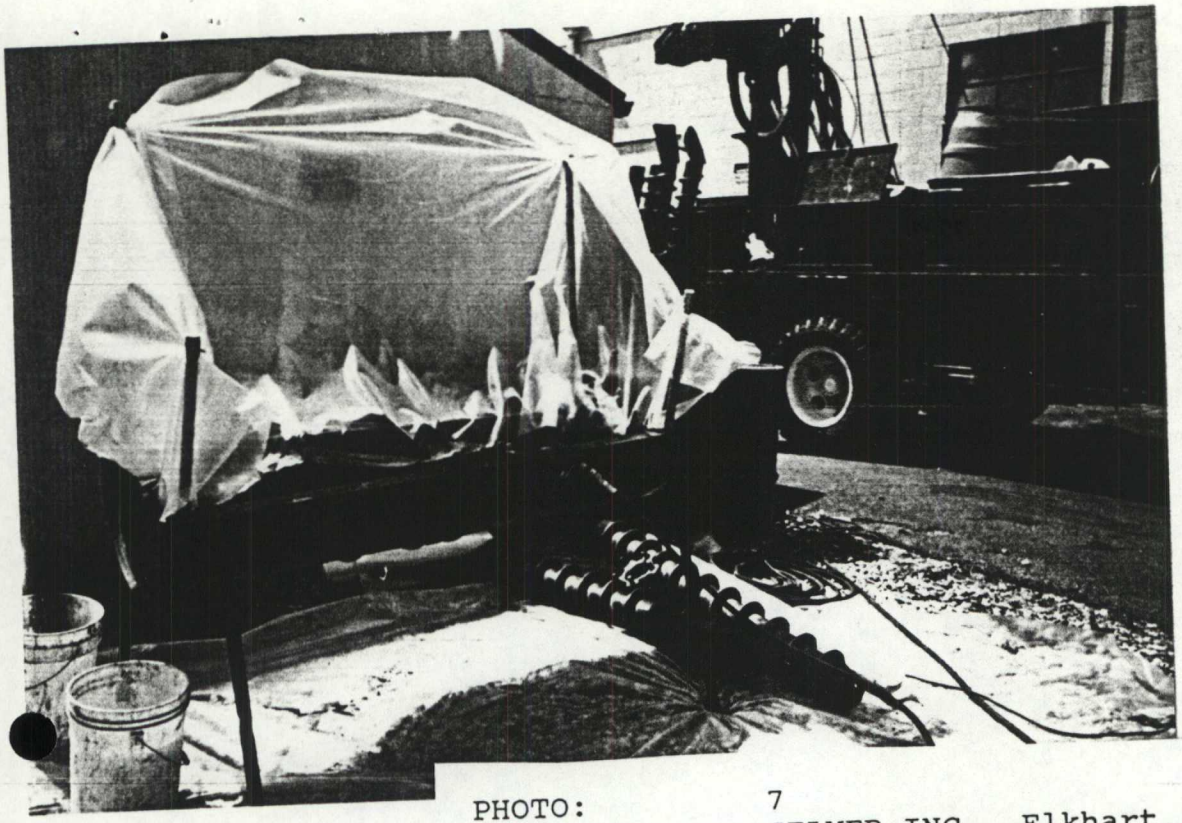

PHOTO: 7
SITE: SELMER INC., Elkhart, Indiana
DESCRIPTION: Drill rig decontamination area.
DATE/TIME: 4/26/89 (1000 - 1730 hours)
PHOTOGRAPHER: Binkley

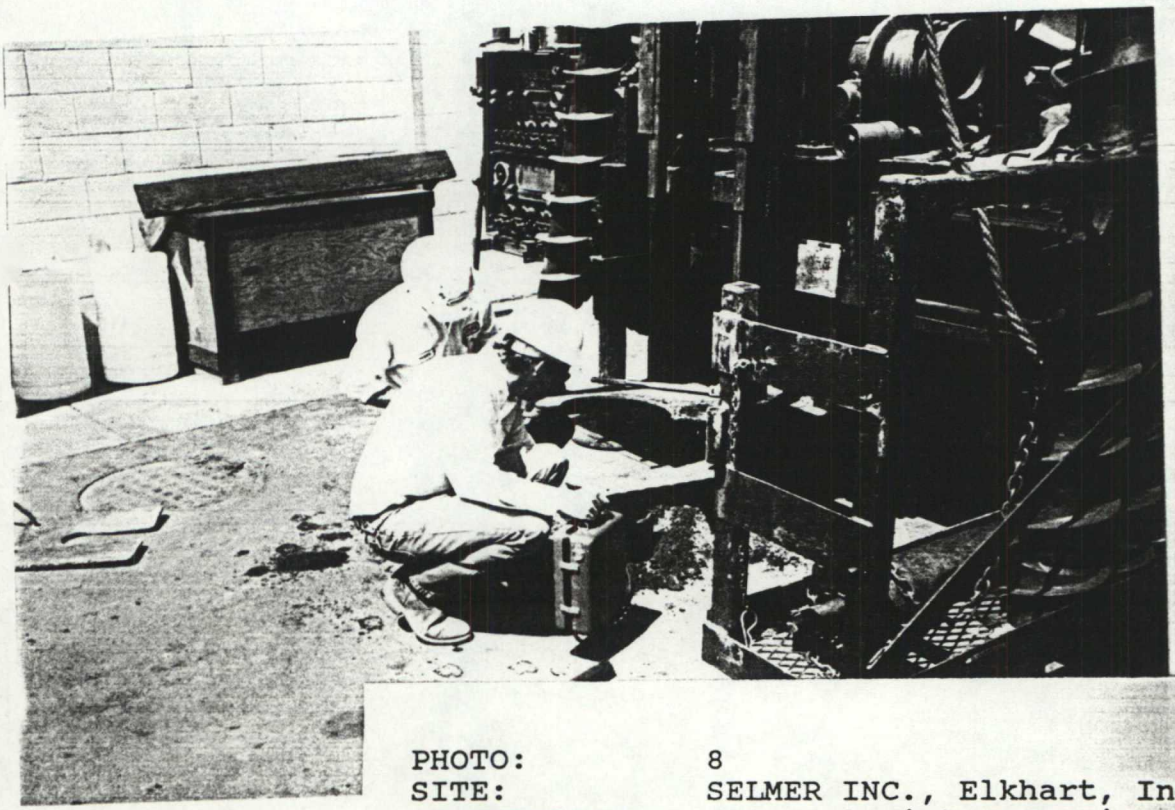

PHOTO: 8
SITE: SELMER INC., Elkhart, Indiana
DESCRIPTION: EIS geologist screening cuttings with organic vapor analyzer at Borehole 2 location.
DATE/TIME: 4/26/89 (1000 - 1730 hours)
PHOTOGRAPHER: Binkley

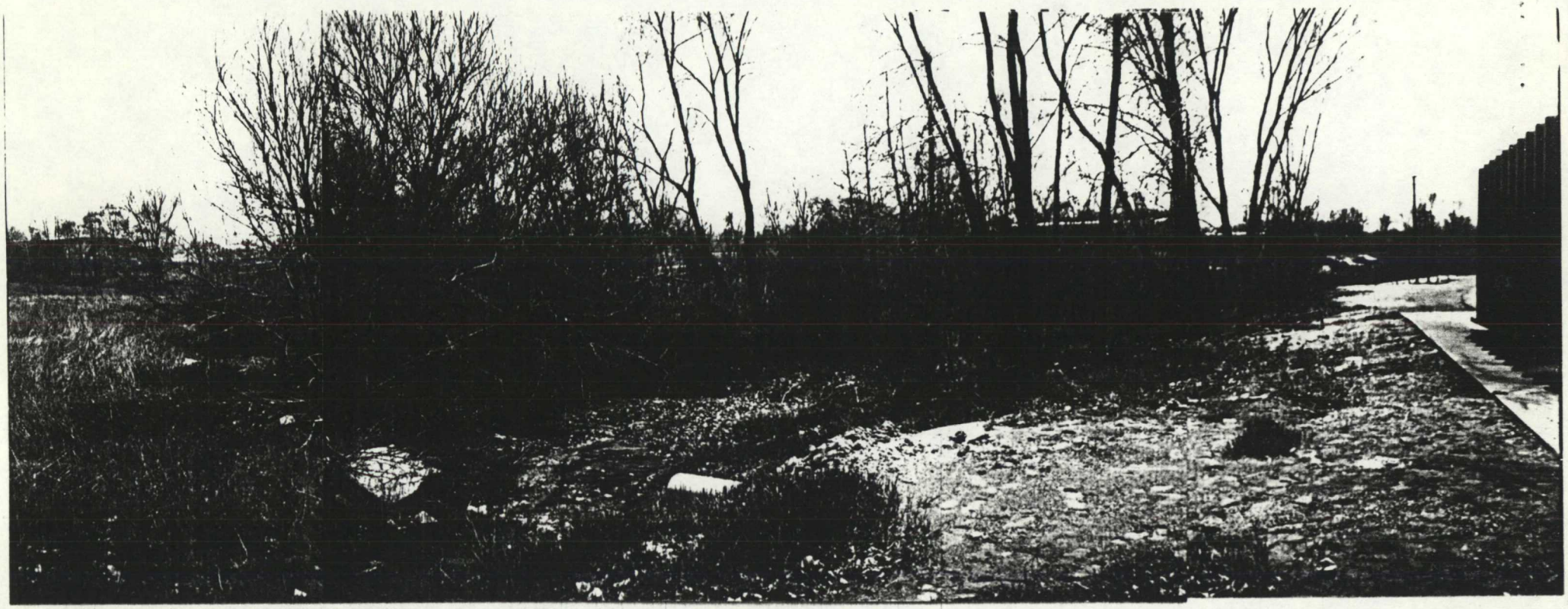

PHOTO: 9
SITE: SELMER INC., Elkhart, Indiana
DESCRIPTION: View looking south/southeast from near alleged dumping area.
DATE/TIME: 4/26/89 (1000 - 1730 hours)
PHOTOGRAPHER: Binkley